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ABSTRACT

Implications of D. Ausubel's Theory of Meaningful Verbal Learning and its derivative, the Advance Organizer Model of Teaching, for deaf students are examined. Ausubel believes that complex intellectual processes (thinking, language, problem-solving, concept formation) are the major aspects of learning, and that primary emphasis should be placed on organization of experiences. These cognitive structures are hierarchically organized in terms of highly inclusive conceptual clusters, under which are subsumed less inclusive sub-concepts. Implications center on issues of philosophy, curriculum (including that the most general ideas should be presented first, followed by progressively differentiated material), and classroom teaching (including that advance organizers, such as illustrations, anologies, and concepts and terms already familiar to the learner should be used to strengthen cognitive structure and enhance retention of new information). An example of one such advance organizer used for an English composition class is given. (CL)

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APPLICATION OF AUSUBEL'S THEORY OF MEANINGFUL VERBAL LEARNING TO CURRICULUM, TEACHING, AND LEARNING OF DEAF STUDENTS

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Abstract

David P. Ausubel is an educational psychologist who believes that complex intellectual processes (thinking, language, problem-solving, concept formation) are the major aspects of learning. Ausubel puts primary emphasis on how one organizes one's experiences--cognitive "structures" which are hierarchically organized in terms of highly inclusive conceptual clusters, under which are subsumed less inclusive sub-concepts. Concerned with helping teachers convey large amounts of information as meaningfully and efficiently as possible, Ausubel has developed the Theory of Meaningful Verbal Learning and its derivative, the Advance Organizer Model of Teaching, as means to strengthen students' cognitive structures. The implications these principles have for teachers of the deaf in the areas of curriculum, teaching, and learning are explored, using examples from the author's curricula undertakings.

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Introduction

For teachers of the deaf,[1] knowledge and application of cognitive theories seem only remotely related to today's lecture, tomorrow's reading assignment, yesterday's quizzes and next week's mid-term; survival is imminent.

And yet, on those days when one can capture a precious moment for reflection, the "educator" within every teacher hungers for insights into students' organization and processing of information and what this could potentially mean for the design and implementation of instructional materials.

Quests for such enlightenment have often proven inordinately frustrating, however. Teachers have been bombarded with definitions and theories of learning which don't integrate into either their teaching experience or teaching intuitions. They know, for example, that learning is not merely an S-R (stimulus-response) change in behavior, an "event." They sense its complexity and its time-consuming nature each day they are in the classroom.

Other theories have placed major emphasis upon the attainment of personality and social development in the school environment. Certainly such goals are laudable, but it is a widely-held view that intellectual training is the distinctive function and responsibility of the school; mastering subject matter and the development of the ability to think critically, systematically and independently should be ultimate academic goals.

In addition, comfortable and conventional approaches to teaching--through presentational methods (i.e., lectures and reading)--have been challenged by educational theorists who claim that discovery methods of teaching and experience-based learning are far superior in enhancing student learning and retention. Yet it is often felt that discovery learning, although it has its proper place in the repertoire of pedagogic techniques, favors the well-prepared mind and is extremely

time-consuming. This approach generally doesn't meet the needs in teaching language-deprived, limited-experience deaf students in ten-week courses at the college level, which is the instructional task of this author.

Hence, ventures in attempting to incorporate educational/psychological theory into teaching practice have often been unsatisfactory. Or, so it was, until the work of David P. Ausubel[2] came upon the educational scene.

Theory of Meaningful Verbal Learning

Theory Overview

Distinguished professor emeritus of the Graduate School and University Center, City University of New York, Ausubel has written countless articles and several books in which he advocates utilization of cognitive learning research and theory in the formulation of instructional fundamentals. He strongly criticizes the use of behavioral psychology principles (Ausubel, 1965) and agrees with Jerome Bruner of Harvard University as to the central importance of cognitive processes in the planning of instruction (Bruner, 1966). Characterizing an individual's organization of knowledge as a cognitive "structure," Ausubel develops his Theory of Meaningful Verbal Learning, which simultaneously addresses teaching, learning, and curriculum issues. His Advance Organizer Model of Teaching serves as a practical guide in assisting teachers in the selection, ordering and presentation of new information, which can then influence and/or strengthen students' cognitive structures (Weil & Joyce, 1978).

Ausubel (1961) is, however, unusual among educational theorists because he unabashedly stands for mastery of academic subject matter, and he advocates presentational methods of teaching (also referred to as expository or receptive learning).

Subsumption Principles

Ausubel's theory and advance organizer model are based on the premise that an individual's existing cognitive structure (organization, stability and clarity of knowledge in a particular subject) is the principal factor influencing the learning and retention of meaningful new material (Ausubel, 1962). Put quite simply, his idea of cognitive organization assumes the existence of a cognitive structure that is organized hierarchically in terms of inclusive concept clusters, under which are subsumed less inclusive sub-concepts, each of which is linked to the next higher step through subsumption (Ausubel, 1960).

Ausubel (1963b) describes the mind's information storing and processing system--cognitive structure--as being parallel to the conceptual structure of academic disciplines. That is, at the top of each discipline are a number of very broad concepts that include or subsume the inclusive concepts.

In Figure 1, for example, is seen a hierarchy of concepts in the field of literature. Although the portions crossed out in this example will not be covered in the particular course that is offered, the information makes clear that those concepts of the discipline are composed of pyramids of concepts all linked together, with the most concrete at the bottom and the more abstract at the top.

In relation to the student's cognitive structure, the subsumption principle is presented as an explanation of how one increases and/or reorganizes one's own sphere of knowledge. New ideas and information, contends Ausubel, are grasped and retained by the learner "only to the extent that more inclusive and appropriately relevant concepts are already available in cognitive structure to serve a subsuming role or to provide ideational anchorage" (Ausubel, 1967, 222). The very fact that these concepts are relatable and subsumable by the learner accounts for their meaningfulness.

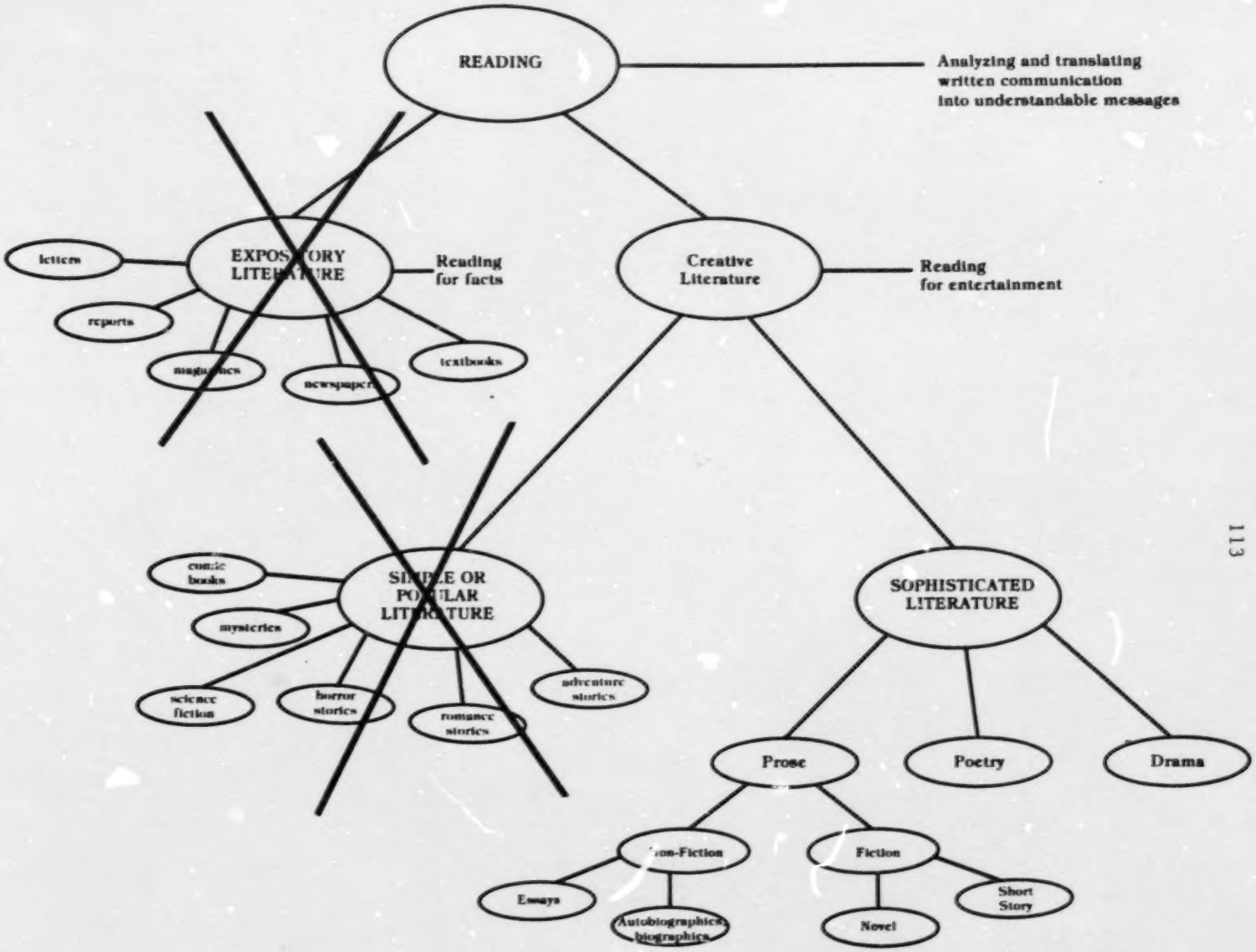

Figure 1. Hierarchy of major concepts of literature study for Genres of World Literature, 0504-331, NTID at RID.

Meaningful Expository Learning

Meaningful learning implies, then, that what one has learned is intellectually linked and understood, in a non-arbitrary fashion, to what was known previously, and that this knowledge can be called upon in new situations (Ausubel, 1968).

In contrast is rote memorization, which lacks conceptual linkage to cognitive structure and is only relatable in an arbitrary, verbatim fashion. Because rotely learned information is not anchored to existing concepts, it is also more likely to be forgotten (Ausubel, 1963b).

Ausubel painstakingly distinguishes "reception" learning from "discovery" learning because he believes there is a widespread but unwarranted notion that reception (expository) learning is invariably rote and that discovery learning is invariably meaningful. He is quite adamant that both reception and discovery learning can be rote or meaningful depending upon the conditions under which the learning occurs (Ausubel, 1961).

Although he concedes that reception teaching certainly is often conducted in rote fashion, Ausubel (1968) strongly rejects the idea that expository learning must indeed foster intellectual passivity; this point is where Ausubel departs from Bruner's preference and support for discovery learning (Bruner, 1959). Ausubel strongly suggests that receptive learning requires active mental processes that are <u>equal</u> to discovery learning (i.e., relating, judging, categorizing, reconciling). Internalizing expository information meaningfully is also a far more economical means (in terms of time and energy) for learning new information, especially for the more mature learner, as opposed to young children (Ausubel, 1961).

The heart of the educational process, then, as Ausubel sees it, is to ascertain what the learner already knows:

> If I had to reduce all of educational psychology to just one principle, I would say this: The most important single factor influencing learning is what the learner already knows. Ascertain this and teach him accordingly. (Ausubel, 1968, preface)

Once this prior knowledge is determined, then it is the teacher who must influence students' cognitive structures in order to maximize meaningful learning, thus ensuring subsequent growth in the ability to use this knowledge in the solution of problems (Ausubel, 1963a).

Very clearly, then, the Theory of Meaningful Verbal Learning simultaneously addresses curriculum, learning, and teaching: (a) how knowledge is organized (curriculum), (b) how one processes new information (learning), and (c) how teachers can apply these curriculum and learning ideas when presenting new material to students (instruction).

Advance Organizers

Ausubel's recommendations for facilitating students' information processing and retention (instruction) are, in many instances, similar to those suggested by Bruner. However, one type of educational intervention unique to Ausubel's theory is the concept of "advance organizers" (Ausubel, 1960).

These organizers are previews or introductions (usually brief written passages) which the student reads before studying the main body of the new material (Anderson & Faust, 1973). The organizer, at a higher level of abstraction, generality, and inclusiveness than the learning task itself, compares and contrasts the new material with what the student already knows, to integrate the material into existing cognitive structure. The principal function of the organizer is described as "bridging the gap between what the learner already knows and

what he needs to know so that he can learn the task at hand more expeditiously" (Ausubel, Novak & Hanesian, 1978, 148; glossary, 628).

It is extremely important to differentiate between advance organizers and overviews. As stated previously, advance organizers consist of introductory material at a higher level of abstraction, generality, and inclusiveness than the learning passage itself. An overview, on the other hand, is a summary presentation of the principal ideas that are yet to come in a passage and not necessarily at a higher level of abstraction, generality, and inclusiveness. In addition, advance organizers differ from overviews in being relatable to presumed content in the learner's current cognitive structure (Ausubel, 1963b, 1968).

In the Appendix is a prose sample of an advance organizer for an English Composition course. This passage appears prior to actual learning tasks and relates the concepts of "English" and "composition" to previously known general knowledge.

Advance organizers facilitate learning and retention of meaningfully learned information in three ways. First, if properly designed, they call attention to and build on relevant anchoring ideas which the learner already has in his cognitive structure (Ausubel, 1962). Second, they provide "ideational scaffolding" for the new material to be learned (Ausubel & Fitzgerald, 1962). Third, this stable and clear organization eliminates the need for rote memorization. Ausubel (1963b, 1968) also contends that avoidance of rote memorization will positively affect student motivation and will make the newly learned information far more useful in real-life situations.

Implications of Theory

Philosophical Implications

Ausubel's theory has proven invaluable to this author as a teacher of college-age deaf students. Not only has it been comforting and inspirational to

discover an elaborate, documented learning theory that parallels one's own, but the principles and resulting teaching model are inordinately helpful in providing practical guidance to developing classroom materials.

Perhaps the most fundamental principle that Ausubel sets forth is his idea that the most important single factor influencing learning is what the learner already knows (existing cognitive structure). This principle is a pivotal point for teachers of the deaf. Historically, educators in this field have been unduly concerned with the circumstances and conditions which have affected our learners (i.e., age of onset of deafness, degree and type of deafness, residual hearing, listening skills, speechreading and speech skills, family environment, educational preparation). It is indeed true that all these factors have contributed to who and what the learner is when he arrives in the classroom. But if one follows Ausubel's lead in focusing on what the student already knows, all these "factors" merely become interesting "facts," and the task at hand becomes uppermost. It can be thought of as "psychoanalytic" vs. "reality" principles; instead of exploring the whys and wherefores, one deals with what is and proceeds from that point. Taking such a position significantly alters one's viewpoint and practices as an instructor.

Curriculum Application

It seems clear that if one adopts Ausubel's theory, two important principles emerge for developing content in subject fields.

First, in order to ensure that concepts become an organized, stable and clear part of a student's cognitive structures, the most general ideas of the discipline should be presented first and then must be progressively differentiated (Ausubel, 1963a) in terms of specificity and detail. This procedure follows Ausubel's idea of how cognitive structure and discipline structure are analogous. The absolute

"accuracy" of the hierarchy which is presented is probably less important than the fact that the teacher or text is operating under some hierarchy.

One need only look at the table of contents of a number of textbooks to find out that the progressive differentiation approach is rarely utilized. Thus, students are often required "to learn the details of new and unfamiliar disciplines before they have an adequate body of knowledge of relevant subsumers at an appropriate level of inclusiveness" (Ausubel, 1968, 153). This point is remarkably familiar in terms of deaf learners. Lack of experience and/or background knowledge often forces them to learn the details of new and unfamiliar concepts, without really knowing what the general, more inclusive concepts are or how they are related to one another; this problem accounts for many of the apparently off-the-point inquiries and comments with which deaf students often confront their teachers. This facts-in-isolation approach to learning could be remedied if Ausubel's ideas regarding progressive differentiation were employed.

The second principle which emanates from adoption of Ausubel's Theory is termed integrative reconciliation (Ausubel, 1963a). Quite simply, this principle claims that if new ideas must be consciously reconciled and integrated with previously learned content, then the sequence of the curriculum must be organized so that each successive learning task is carefully related to what has been presented before. This procedure occurs when teachers make an explicit effort "to explore relationships between ideas, to point out significant similarities and differences, and to reconcile real or apparent inconsistencies" (Ausubel, 1968, 155). This procedure should happen naturally from the hierarchy/structure approach, but the teacher's active resolve to do these things will undoubtedly contribute to fortifying students' cognitive structures.

To illustrate, in Figure 2 is offered a knowledge hierarchy for an English Composition course. In addition to presenting the structure, it also introduces

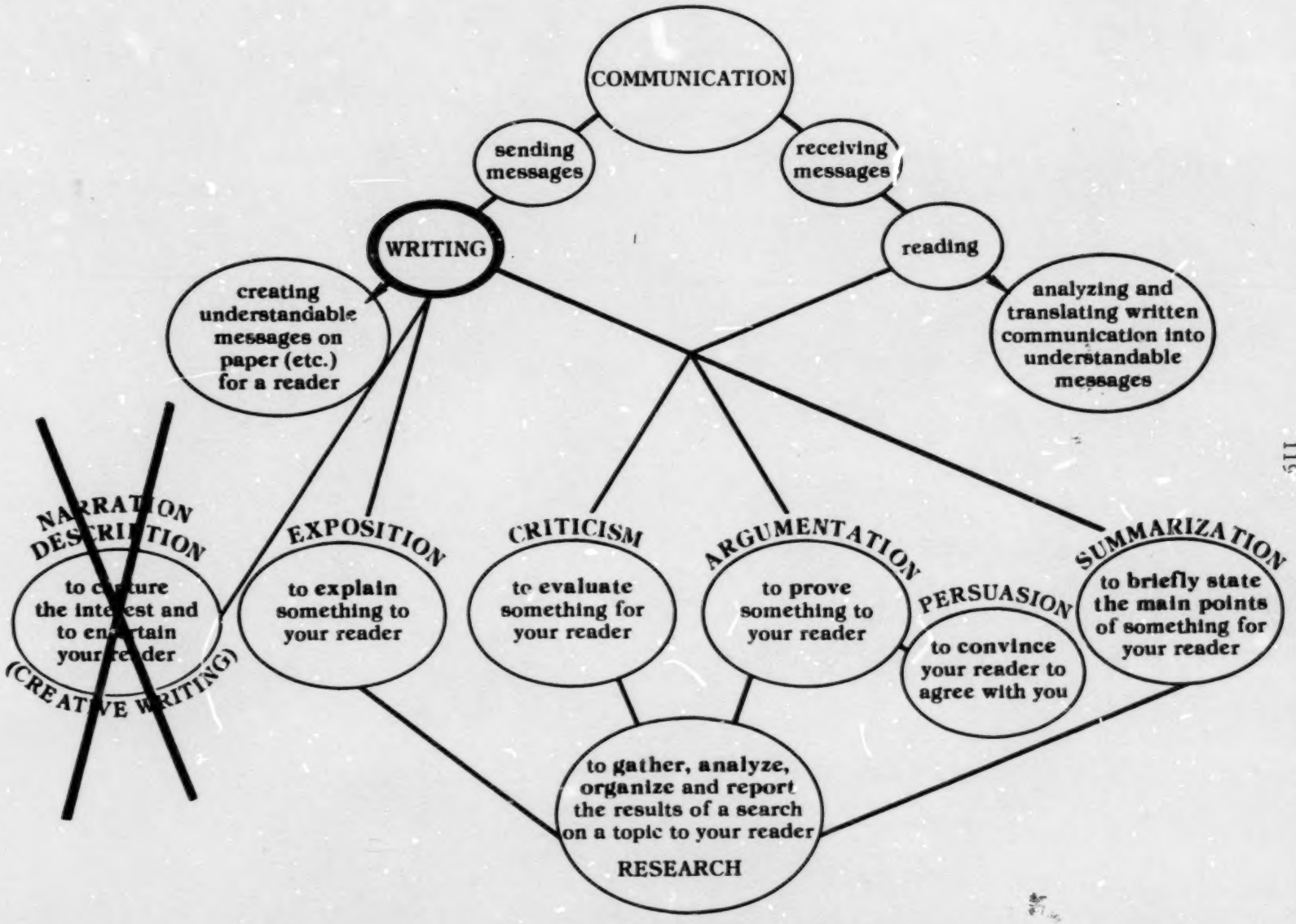
COMMUNICATION
sending messages
receiving messages
WRITING
reading
creating understandable messages on paper (etc.) for a reader
analyzing and translating written communication into understandable messages
NARRATION
DESCRIPTION
to capture the interest and to entertain your reader
(CREATIVE WRITING)
EXPOSITION
to explain something to your reader
CRITICISM
to evaluate something for your reader
ARGUMENTATION
to prove something to your reader
PERSUASION
to convince your reader to agree with you
SUMMARIZATION
to briefly state the main points of something for your reader
to gather, analyze, organize and report the results of a search on a topic to your reader
RESEARCH

Figure 2. Structure of major concepts in English Composition, 0502-220, NTID at RIT.

relationships between concepts (i.e., research writing is a combination of exposition, criticism, argumentation, and summarization writing).

In Figure 3 is seen an organization of concepts designed to help students reconcile and integrate the various types of writing in this course. This action is accomplished through the compare/contrast technique.

Each of these types of writing is further detailed in individual charts and explanations. Figure 4 delineates the specificity and detail that are the final result of progressive differentiation of concepts.

Thus, the principles of progressive differentiation and integrative reconciliation are illustrated in tracing the concepts from Figures 2 through 4.

Teaching Application

In classroom teaching situations, the essential key to strengthening cognitive structure and enhancing retention of new information is through the use of advance organizers, described and illustrated previously in this paper. The most effective organizers are those that use "concepts, propositions and terms that are already familiar to the learner, as well as appropriate illustrations and analogies" (Weil & Joyce, 1978, 209).

In addition to using prose forms of advance organizers (see Appendix), charts and diagrams can be developed which function as advance organizers. Presenting information visually is a long-recognized strategy in teaching the deaf, the primary reason being to downplay deaf students' language difficulties by eliminating excessive prose information. But, if introduced at the appropriate time and at the appropriate level of abstraction, generality, and inclusiveness, these visual organizers also function as advance organizers which will significantly strengthen students' cognitive structures.

A very successful advance organizer which has been developed by this author is "Mrs. Biser's Super-Duper, No-Fail, Easy-to-Use Recipe for Creating Delectable,

TYPES OF WRITING — Overview

English Composition 0502-220

TYPE OF WRITING	MEANING	VERB OF PURPOSE	POINT OF VIEW	SAMPLE ASSIGNMENTS	SAMPLE TITLES
1. EXPOSITION (information)	• to give information to your reader so that he/she clearly understands	*explain* to your reader	3rd person (1st possible)	• Explain the communications controversy in deaf education • Tell about Einstein's theory of relativity • Discuss photosynthesis • Clarify your role in this institution	• Communication Controversy Among Educators of the Deaf • Einstein's Theory of Relativity • Photosynthesis • My Role at NTID
2. EXPOSITION (process)	• to tell your reader how something is or was done	*explain the process* to your reader	3rd person preferred (1st and/or 2nd possible)	• Explain the process of papermaking • Explain how steel is made • Explain how to change a tire • Explain the process of registration at NTID	• The Process of Papermaking • Steelmaking: The Process • Changing a Tire • Registration at NTID
2. EXPOSITION (how to)	• to tell your reader how to make or do something	*explain how to* to your reader	3rd, 2nd, and 1st all possible	• Explain how to make pizza • Explain how to build a stereo speaker • Explain how to relax • Explain how to become a millionaire	• How to Make Pizza • How to Build a Stereo Speaker • How to Relax • How to Become a Millionaire
2. EXPOSITION (directions)	• to give directions to your reader about how to make or do something	*explain the directions* to your reader	2nd person	• Explain the directions for cleaning a 35mm camera • Instruct someone how to water ski • Teach the steps to serving a ball in tennis • Give directions to make quiche lorraine	• How to Clean a 35mm Camera • How You Can Water Ski • How to Serve a Tennis Ball • Quiche Lorraine Recipe
3. CRITICISM	• to evaluate the overall quality of something for your reader	*critique* for your reader	3rd person and/or 1st person	• Critique *The Good Earth* • Evaluate Spielberg's *E.T.* • Judge the overall quality of dorm life at RIT • Rate your English Composition teacher	• *The Good Earth*: A Critique • *E.T.* - Its Good and Bad Points • Dorm Life at RIT • My English Composition Teacher
4. ARGUMENTATION	• to prove something to your reader, through logical reasoning	*argue* for or against something for your reader	3rd person (1st person possible)	• Argue your position on capital punishment • "Prove" that ghosts exist • Support the argument for increase in taxes • Justify your position on gun control	• Capital Punishment - A Necessity • The Existence of Ghosts: Yes • Tax Increases: Inevitable • We Need Gun Control
4. PERSUASION	• to convince your reader to agree with you, through emotional appeal and reasons	*persuade* your reader	3rd person preferred (1st and 2nd possible)	• Persuade your reader to buy more life insurance • Convince your reader that abortion is wrong • Persuade your reader to buy Cheerios • Convince your reader that you need a pay raise	• More Life Insurance Coverage • Abortion: A Right to Kill • Cheerios are the Best! • More Money, Please
5. SUMMARIZATION	• to briefly state the main points of something for your reader	*summarize* for your reader	3rd person	• Summarize the plot of *Gone With the Wind* • Briefly state the main points of Reagan's federalism policy • Condense the major points of a chapter of a book • Sum up the process of filmmaking	• A Plot Summary of *Gone With the Wind* • Federalism: Reagan's New Policy • A Summary of Chapter IV • An Overview of Filmmaking
6. RESEARCH (A combination of exposition, criticism, argumentation and/or summarization)	• to gather, analyze, organize and report the results of a search on a topic to your reader	*research and report* to your reader	3rd person	• Research and report on some aspect of South Africa • Gather, analyze, organize and report on child abuse in America today • Investigate and report on wind energy • Analyze and report on tribal medicine in South America	• Racial Discrimination in South Africa • Child Abuse: A Growing Problem • Wind Power as an Energy Source • The Witch Doctor's Influence in South American Tribes

Figure 3. Types of writing: Further progressive differentiation for English Composition, 0502-220, NTID at RIT.

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EXPOSITION (Information)

English Composition 0502-220

MEANING	VERB OF PURPOSE	POINT OF VIEW	OTHER POSSIBLE ASSIGNMENT VERBS	SAMPLE ASSIGNMENTS	SAMPLE TITLES
• to give information to your reader so that he/she clearly understands	*explain* to your reader	3rd person (1st possible)	• tell • discuss • clarify • state	• Explain the communication controversy in deaf education • Tell about Einstein's theory of relativity • Discuss photosynthesis • Clarify your role in this institution	• Communication Controversy Among Educators of the Deaf • Einstein's Theory of Relativity • Photosynthesis • My Role at NTID

IDEA DEVELOPMENT PATTERNS

Necessary Patterns to Consider:

- Definition/Description Characteristics/Function/ Examples
- Analysis
- Classification

Optional Patterns to Consider:

- Evidence
- Compare/Contrast
- Cause/Effect
- Pros/Cons or Advantages/Disadvantages

HINTS

Hints for Pre-Writing

1. **Brainstorming/Idea Development Patterns:**
   a. Consider the D/D/C/F/E pattern. Be sure you can fully answer the following:
      1) What is it? / What does it mean? } definition
      2) What does it look like? / How is it put together? / How does it work? } description
      3) What are its unique features? } characteristics
      4) What does it do? / What is it good for? / What is its importance? } function
      5) What are some good examples? } examples
   b. Consider the Analysis pattern. Can you break the "whole" into its parts? Will this help the reader understand more clearly?
   c. Consider the Classification pattern. Can all of the parts be grouped into categories which would help your reader?
   d. Consider the Optional Patterns. Can you develop your ideas further by choosing one of those at the left.
2. **Order:** Any order choice is possible
3. **Point of View:** As a rule, use 3rd person (unless 1st person is specified in the assignment).
4. **Title:** Try to make it clear to the reader what you will be explaining.
5. **Outline:** Make sure your discussion points are all nouns.

Hints for Writing

1. Avoid big, broad statements. Instead, give specific details and/or examples which will clarify things for your reader.
2. Remember, be clear, concise, and complete, as well as accurate.

Figure 4. Exposition (Information) type of writing: Detail of progressive differentiation for English Composition, 0502-220, NTID at RIT.

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Delightful and Delicious Written Compositions" (see Figure 5). This combination of visual organization, visual representation, and prose description of ideas forms the basis for the explanation and subsequent execution of the process of writing in an English Composition course.

This chart is presented only after much groundwork had been laid in the areas of writing and writing products, characteristics of good writing and the form of the composition. This advance organizer serves to provide the "ideational scaffolding" between the previously learned material and the subsequent, detailed information and tasks connected with each of the steps of the writing process.

Conclusion

Ausubel is not without his critics. Anderson, Spiro, Anderson (1978) have asserted that the Theory of Meaningful Verbal Learning (specifically the nature of anchoring or subsuming ideas in cognitive structure) is "hopelessly vague." Indeed Ausubel gives few specific examples for his concepts; he may be guilty, then, <u>not</u> of being hopelessly vague but hopelessly theoretical, because this practitioner has had no difficulty executing his theory principles in curricular undertakings and classroom presentations. And despite his seeming aversion to offering specifics, Weil and Joyce (1978) had no difficulty in making his theory operational in describing what teachers must do when they teach according to his theory.

In his own defense, Ausubel (1978, 1980) contends that apart from describing concepts in general terms, along with an appropriate example, he cannot be more specific because the precise process will always depend on the nature of the learning material, the age of the learner, and the degree of prior familiarity with the learning task. Additionally, he reminds his critics that an operational definition specifies only the <u>general</u> criteria of independent variables.

Mrs. Biser's *Super-Duper, No-Fail, Easy-to-Use Recipe for Creating Delectable, Delightful and Delicious Written Compositions*

	WHAT TO DO	WHAT IT MEANS	HOW TO DO IT		WHY DO IT?
PRE-WRITING	1. SATURATE	To soak up/absorb/fill completely.	Experience the world around you.	Soak up your world like a sponge. Read, watch, listen, feel, think. Keep your mind, eyes and ears open. Be on the lookout for new ideas, new people, new events, new ways of doing things.	The world is an exciting place -- full of fascinating ideas, people, events, places and things. The more you know about your world, the better your writing will be; you will have interesting things to say. Saturating increases your knowledge.
	2. UNDERTAKE	To assume responsibility and begin a task.	Tackle your writing task.	Begin your writing task with a sense of responsibility and enthusiasm. Only you can do your work!	Taking responsibility is sometimes difficult. We often avoid or postpone a writing task. But the only way to feel better is by undertaking it with determination and willingness.
	3. INTERROGATE	To question/cross-examine.	Ask questions to clarify your writing task.	Ask yourself questions about your writing task (due date, special directions, etc.). If you cannot answer them, ask the person assigning the writing task.	There is nothing quite so frustrating as trying to begin a writing task when you feel "lost" and confused. Interrogating yourself and the person who assigned the task will clarify things and will make you feel confident about beginning.
	4. CONCENTRATE	To focus on/study.	Identify the verb of purpose and the main topic of your writing task.	THIS IS THE MOST IMPORTANT STEP IN THE WRITING PROCESS. You must figure out why you are writing (verb of purpose) and what you are writing about (main topic). You do this by following some simple rules.	If you don't know your verb of purpose or your main topic, you cannot create a satisfactory writing product. Concentrating and following some simple rules will convert chaos to clarity.
	5. FORMULATE	To organize and plan.	Organize your ideas and Plan your outline and Write your introduction.	THIS IS THE SECOND MOST IMPORTANT STEP IN THE WRITING PROCESS. You must choose a point of view and a development technique. You must brainstorm for outline ideas. You must organize your ideas, plan your outline, and write your introduction (general statement and thesis statement).	Good writing rarely comes "in a flash." It is a lot of HARD WORK. It requires formulating your ideas in your head and on paper. If you do not know what you want to write about, you can bet your reader won't either!
WRITING	6. ACTUATE	To put into action/motion.	Put your introduction and outline into written language (your first rough draft).	Now that you have a good outline and introduction, GET BUSY and WRITE your rough draft. Be sure to use the introduction that you wrote. Also follow your outline and repeat "key" words in each body paragraph.	You can have the world's greatest ideas in your head and in outline form. But they are not worth much until you put them into words, sentences and paragraphs, using standard English. Actuating yourself is a must!
POST-WRITING	7. INCUBATE	To allow time to develop to maturity.	Take a break and Allow time for your ideas to grow and develop.	Let your brain rest awhile. Don't think about your writing. Just let it "sit" in your mind.	Ideas often need time to grow and develop. Incubating your ideas is important. By resting your brain for awhile, your ideas may change and mature without much extra work from you.
	8. EVALUATE	To appraise/determine.	Carefully read what you've written and Decide which areas are weak and Improve your weak areas.	After your break, read what you've written again. Pretend you've never seen it before. Pretend you are a stupid, blind, lazy but curious reader. What are the problems? How could it be better in content, organization, grammar and mechanics? Improve the weak areas.	Nothing is ever perfect on the first try. Evaluating your writing by asking yourself appropriate questions is absolutely necessary for improving your original ideas.
	9. RE-CREATE	To form anew.	Rewrite and Improve and Rewrite	Rewrite it after you've improved the weak areas. You must continue to pretend you are a stupid, blind, lazy but curious reader of your own writing. Make it clear and simple, concise and complete. Rewrite until you are satisfied.	Writing is a constant challenge. You can always improve it. You need to make it the best it can be. After all, your writing is used to judge you. Re-creating will ensure improvement.
	10. "PERFECTUATE"	To make perfect.	Proofread and Correct errors and Write your final draft and Prepare for presentation.	At some point you will feel satisfied. Now you must proofread for grammar and mechanical errors. Then you must write your final draft, following all the rules of good form. Then you must proofread again and prepare everything for presentation.	Tender, loving care (TLC) to the details of grammar and mechanics, form and presentation give the reader a good first impression of your writing. "Perfectuating" is proof that you have pride in your ideas and work.
	11. CELEBRATE	To show satisfaction through festivities.	Enjoy and Rejoice	Put your finished writing product away for an hour or two. Now read it again. If you've mixed all the ingredients properly and followed the step-by-step directions, you should have a very acceptable composition. Be happy.	You've done a lot of hard work. You've created something that never existed before. It's yours, and hopefully you are proud of it. Celebrating is what you deserve!

Figure 5. "Mrs. Biser's Super-Duper Recipe": An advance organizer for English Composition, 0502-220, NTID at RIT.

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Some twenty years after the initial introduction of this theory in 1960, Ausubel (1980) remains convinced of its validity and reliability. Five years after initiation into "Ausubel principles," its validity is confirmed for use in the teaching, learning, and curriculum development of deaf students, as well as its reliability in doing what it claims to do--making an intricate cognitive psychological theory relevant and applicable to educational practice.

Footnotes

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Appendix

Advance Organizer Sample

English Composition 0502-220

NTID at RIT

Let's take a look at the two words which make up this course title:

ENGLISH COMPOSITION

First, let's discuss the word ENGLISH. This obviously refers to the official, primary language of the people of England, the United States, and many areas now or formerly under British control--such as Canada, Australia, and New Zealand. As citizens of the U.S., we have all been exposed to the English language, and each of us has varying levels of expertise in speaking, reading, and writing the English language.

The second word in this course title--COMPOSITION--is not as familiar. Composition (a noun) comes from the verb "compose" which means to form something by putting together or combining ingredients. In music, a composer puts many notes and other elements together to form a musical composition. In photography, a person forms a picture by combining many things which can be seen through a camera lens; this is called photographic composition. Artists combine their "ingredients" to form paintings or water colors or collages, etc.; these are called artistic compositions.

In written language--English, in our case--a person combines ideas with the proper words, sentences, phrases, and paragraphs and forms a written composition--a product of mixing and combining these ingredients.

Therefore, in English Composition we will study how to combine ingredients, in a step-by-step process, to create the product of a written composition in the English language. This course will also help you to combine the elements of several types of compositions into a research paper.

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